AV IN
FOCUS
Pico Pocket Projector

Eye Safety Warnings

⚠	Avoid staring/facing directly into the projector beam at all times. Keep your back to the beam as much as possible.
⚠	A stick or laser pointer is recommended to avoid the need for the user to enter the beam.
⚠	When projector is used in a classroom, adequately supervise students when they are asked to point out something on the screen.
⚠	In order to minimize power, use room blinds to reduce ambient light levels.

Important Safety Instruction

1. Do not block any ventilation openings. To ensure reliable operation of the projector and to protect from over heating, it is recommended to install the projector in a location that does not block ventilation. As an example, do not place the projector on a crowded coffee table, sofa, bed, etc. Do not put the projector in an enclosure such as a book case or a cabinet that restricts air flow.
2. Do not use the projector near water or moisture. To reduce the risk of fire and/or electric shock, do not expose the projector to rain or moisture.
3. Do not install near heat sources such as radiators, heaters, stoves or any other apparatus such as amplifiers that emits heat.
4. Do not use the projector in direct sunlight.
5. Do not use near any appliance generating a strong magnetic field.
6. Do not use the projector in areas susceptible to excessive dust and dirt.
7. Turn off the product before cleaning.
8. Turn off the product before removing the battery.
9. Disconnect the battery if the product is not being used for a long period of time.
10. Ensure that the ambient room temperature is within 5- 35°C.
11. Relative Humidity is 5 - 35°C, 80% (Max.), non-condensing.
12. Do not expose the battery to temperatures above +60°C (+140°F)
13. New or idle batteries can have short-term reduced capacity. Fully charge the battery before initial use.
14. Do not put the battery into your mouth.
15. Do not let the battery contacts touch another metal object.
16. Do not drop, throw or try to bend your product.
17. May explode if disposed of in fire.
18. Clean only with dry cloth.
19. Only use attachments/accessories specified by the manufacturer.
20. Do not use the unit if it has been physically damaged or abused. Physical damage/abuse would be (but not limited to):
    - Unit has been dropped.
    - Charger or plug has been damaged.
    - Liquid has been spilled on to the projector.
    - Projector has been exposed to rain or moisture.
    - Something has fallen in the projector or something is loose inside.

    Do not attempt to service the unit yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Please contact your local reseller or service center before you send the unit for repair.
21. Do not let objects or liquids enter the projector. They may touch dangerous voltage points and short out parts that could result in fire or electric shock.
22. See projector enclosure for safety related markings.
23. The unit should only be repaired by appropriate service personnel.
24. Do not touch the projector for a long time while the projector is used.
25. CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type.
26. Dispose of Used Batteries According to the Instructions.

Regulation & safety notices

This appendix lists the general notices of your Projector.

FCC notice

This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Notice: Shielded cables

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this device.

Operation conditions

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Notice: Canadian users

This Class B digital apparatus complies with Canadian ICES-003.

Remarque à l'intention des utilisateurs canadiens

Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canada.

Declaration of Conformity for EU countries

- EMC Directive 2004/108/EC (including amendments)
- Low Voltage Directive 2006/95/EC
- R & TTE Directive 1999/5/EC (if product has RF function)

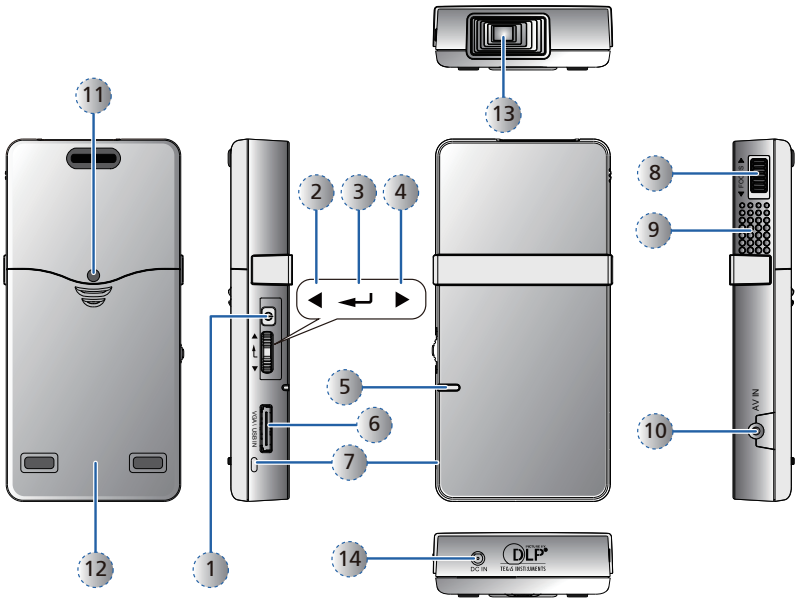
Disposal of old Electrical & Electronic Equipment

(Applicable throughout the European Union and other European countries with separate collection programs)

This symbol found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate disposal of this product. The recycling of materials will help to conserve natural resources.

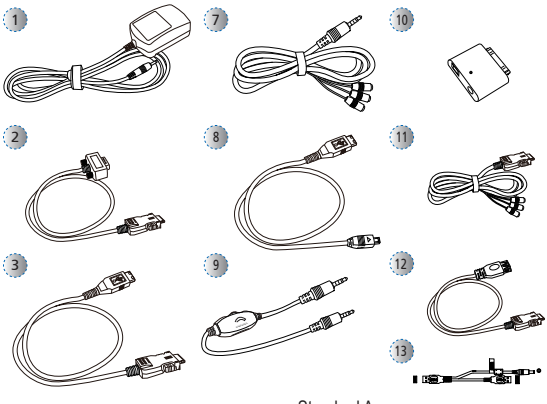
This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Product Overview



1. Power Button
2. Volume +/Up
3. Menu/Enter/Back Button
4. Volume -/Down Button
5. LED Indicator
6. VGA/USB Input Connector
7. Through-hole for straps
8. Focus Dial
9. Speaker
10. AV Input Connector
11. Screw Hole for Tripod Convertor
12. Battery Cover
13. Lens
14. DC Input

Package Overview

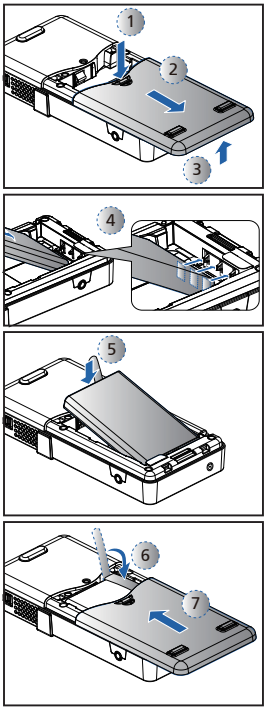


Standard Accessory
1. Power adaptor with DC Jack
2. VGA cable
3. USB Male Cable
4. Battery
5. Tripod Adapter

Option Accessory
6. AV-II cable
7. AV Cable
8. USB Cable for iPod Connector
9. iPod Cable with volume control
10. iPod Connector
11. Component Cable
12. USB Female Cable
13. USB to DC jack cable

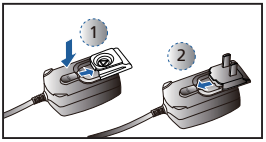
<Note>
The standard accessories may vary in each region due to different applications.

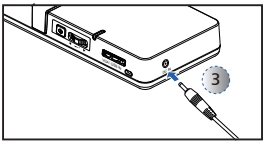
Installing the Battery

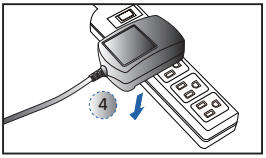


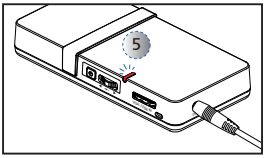
1. Remove the battery cover. (①~③)
2. Insert battery with electrical contacts facing downward and away from lens. Slide under tab. (④)
3. Ensure battery pull tab extends from under battery. (⑤)
4. Slide the battery cover back into place over battery pull tab.(⑥~⑦)

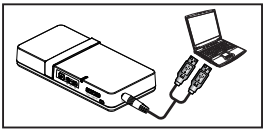
Charging the Battery









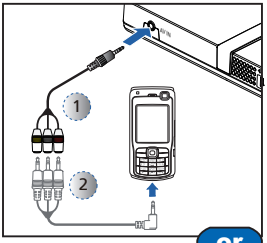


1. Remove protection cap and insert the plug. (①~②)
2. Connect the charger. (③~④)
3. During charging the LED indicator lights red. (⑤)
   ⚠ Projector will not charge while operating.
4. The LED Charge Indicator will go off when battery is fully charged. This process may take up to 2.5 hours

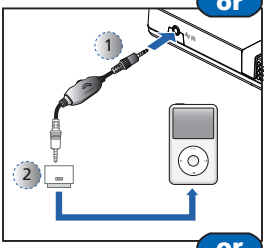
<Note>
1. For more LED indicator, see page 7.
2. The indicator will flash red when no battery is installed.

<Optional>
The PK102 can also be charged via USB to DC cable (⑥)

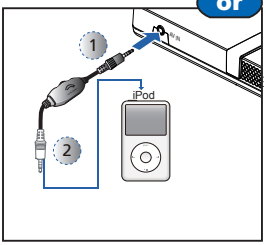
Connect Input Source - (Video in)



or



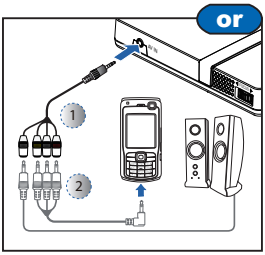
or



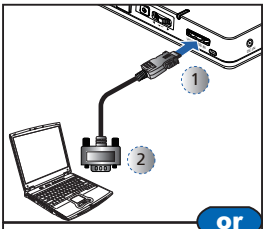
1. Connect the AV input source. (①~②)
2. Connect to external speaker using AVII cable (optional) and use the toggle to disable/enable the PK102 internal speaker (③)

<Note>
1. All other brand and product names are trademarks or registered trademarks of their respective companies.
2. The connecting cable of video output device is not supplied, please contact their service center.
3. iPod nano/iPod touch/iPhone/iPod classic (version 5 and above)
4. Designed for iPod/iPhone/Mobile phone/ PMP with TV out functions. Using with device with audio signal voltage > 0.3Vrms is not recommended.

or



Connect Input Source - (VGA/USB/Component in)



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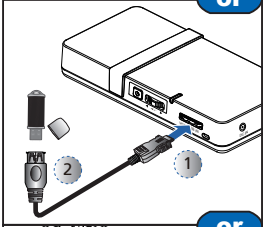
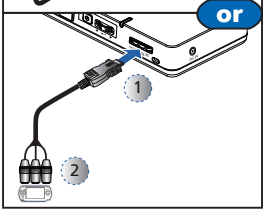


or



1. Connect the VGA/USB/ Component source device.
   ⚠ Insert universal connector with arrow mark facing up.

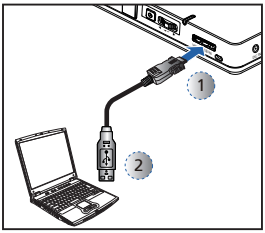
<Note> Supported formats
VGA: 640x480@60Hz, 800x600@60Hz

<Note> Supported Files
Photos: bmp, jpeg
Video: M-JPEG, MPEG4, RMVB, RM, WMV, Xvid, Mov by Optoma Video encoder

<Note>
USB device: Support USB Flash Drive up to 5V/150mA, but does not support USB Hard Disk Drive

<Note> Supported formats
Component input resolution must be 480i/p

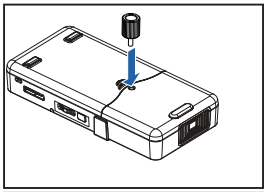
Connect Input Source Data transfer

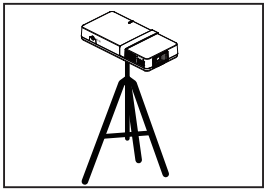


1. Connect laptop or PC for data transfer to the PK102 internal memory using supplied Male USB Cable

<Note> The laptop/PC can only detect the input source when the PK102 is switched on. This should stop the projection at the mean time.

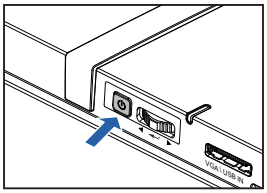
Using a Tripod Stand





1. Screw the supplied tripod adaptor into the screw hole on the projector.
2. Attach a standard tripod to the tripod adaptor.

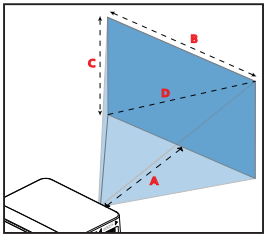
Switch on

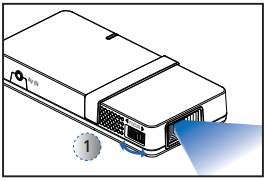


1. Press the Power button.

Adjusting the Projected Image

Projection Distance (A)		Screen Size - Width (B)		Screen Size - Height (C)		Screen Diagonal (D)	
Meter	inch	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)
0.200	7.9	106	4.2	71	2.8	127	5.0
0.500	19.7	265	10.4	176	6.9	318	12.5
0.800	31.5	423	16.7	282	11.1	509	20.0
1.000	39.4	529	20.8	353	13.9	636	25.0
1.500	59.1	794	31.2	529	20.8	954	37.6
2.000	78.7	1058	41.7	705	27.8	1272	50.1
2.500	98.4	1323	52.1	882	34.7	1590	62.6
2.636	103.8	1395	54.9	930	36.6	1676	66.0





1. Adjust Focus (①) until image is clear.

Downloading Optoma Video Encoder

Only Video files that are converted using the Optoma Video Encoder can be read by PK102.

1. Find the video converter at “Optoma Video Encoder” folder stored in PK102
2. Download the video converter from PK102
3. Installation
4. After installation, the shortcut of the main program will be found in the “Start/All programs” menu item.
5. Launch the main program of “Optoma Video Encoder”
6. Find the Optoma Video Encoder user guide in “Optoma Video Encoder” folder in PK102

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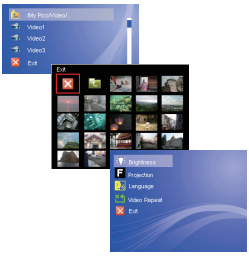
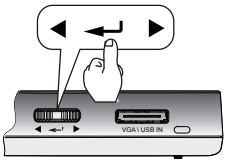
How to Use the Menu

Main menu

Item





1. Display the Main Menu. (↵)
2. Highlight the desired option (◀▶)
3. Enter the desired option. (↵)
4. Highlight the desired item. (◀▶)
5. Select the item. (↵)
6. Press (↵) and hold to go up one directory.
7. Select Exit to go to the main menu.
8. OSD disappears in 5 seconds if the button is not pressed
9. The projector will automatically shut down if idling in main menu and file browser for 3 minutes.

<Note>
Steps 6, 7, 8 applicable for connecting VGA, Composite, and Component signals

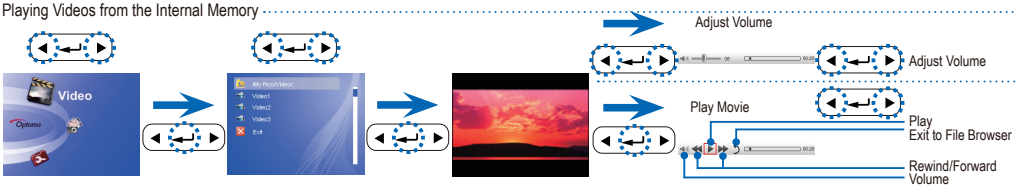
<Note>
The first time you use the projector, you can select your preferred language from quick menu after the startup screen display.

How to Use the Menu - Internal

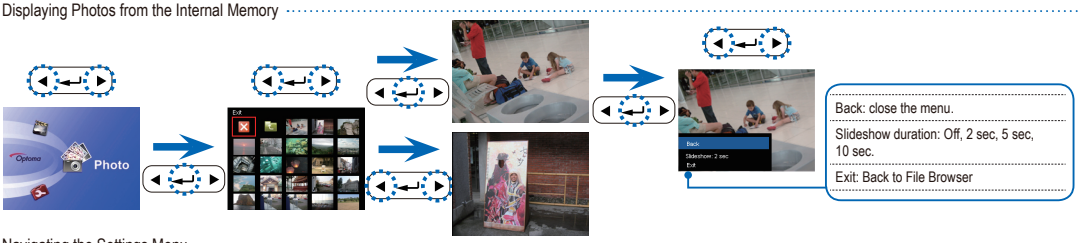
↵	Menu/Enter
◀	Volume +/Up
▶	Volume -/Down

<Note> Supported format
Photo: bmp, jpeg
Video: M-JPEG, MPEG4, RMVB, RM, WMV, Xvid, Mov by Optoma Video encoder

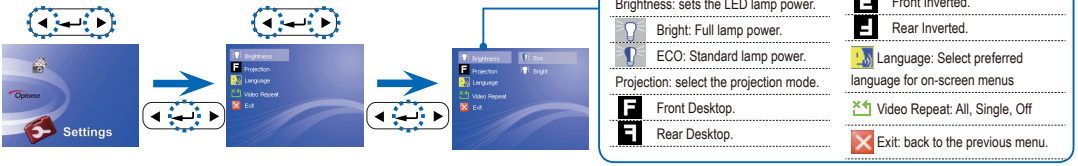
Playing Videos from the Internal Memory



Displaying Photos from the Internal Memory



Navigating the Settings Menu

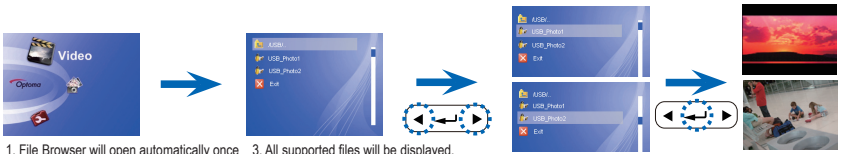


How to Use the Menu - External for USB Host Mode

↵	Menu/Enter
◀	Volume +/Up
▶	Volume -/Down

<Note> Supported format
Photo: bmp, jpeg
Video: M-JPEG, MPEG4, RMVB, RM, WMV, Xvid, Mov by Optoma Video encoder

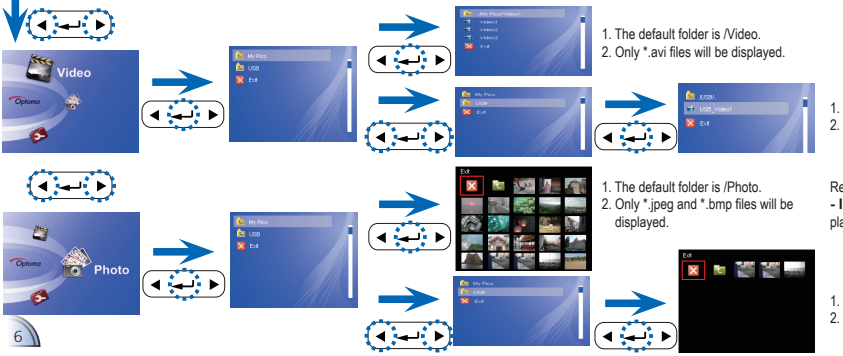
Insert USB storage device using USB Female Cable (optional)



1. File Browser will open automatically once USB device is connected (see page 4)
2. The default folder is /USB.

3. All supported files will be displayed.
4. Select "Exit" to return to the Main Menu and to access the internal memory (My Pico)

Refer to "**How to Use the Menu - Internal**" for more information on playing videos and viewing photos.



1. The default folder is /Video.
2. Only *.avi files will be displayed.

1. The default folder is /USB.
2. Only *.avi files will be displayed.

1. The default folder is /Photo.
2. Only *.jpeg and *.bmp files will be displayed.

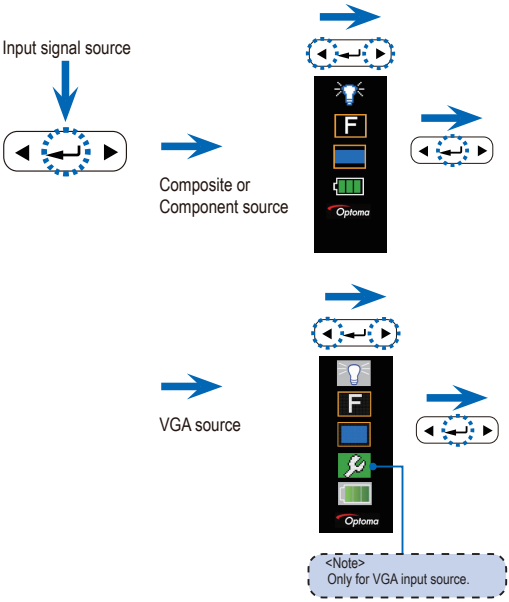
Refer to "**How to Use the Menu - Internal**" for more information on playing videos and viewing photos.

1. The default folder is /USB.
2. Only *.jpeg and *.bmp files will be displayed.

How to Use the Menu - External Source Input (Composite AV, VGA, Component)

↵	Menu/Enter
◀	Volume +/Up
▶	Volume -/Down

<Note> Supported format
Composite AV: NTSC, PAL
VGA: 640x480@60Hz, 800x600@60Hz
Component: 480i/p



- Bright mode: Full lamp power.
- ECO: Standard lamp power.
- Front Desktop.
- Rear Desktop.
- Front Inverted.
- Rear Inverted.
- 4x3 aspect ratio.
- 3x2 aspect ratio.
- Battery is at full capacity.
- Battery is at mid capacity
- Battery is at low capacity
- Image setting, you can adjust Frequency, Phase and H. Position functions.
- H. Position: adjust the horizontal position.

- Phase: change the display data frequency to match the frequency of your computer's graphic card. Use this function only if the image appears to flicker vertically.
- Frequency: synchronize the signal timing of the display with the graphic card. If the image appears to be unstable or flickers, use this function to correct it.

Troubleshooting

If you experience a problem with your projector, please refer to the following information. If a problem persists, please contact your local reseller or service center.

Image Problems

? No image appears on-screen
- Ensure the cables/charger/ battery are correctly and securely connected.
- Ensure the pins of connectors are not crooked or broken.
- Make sure the projector is switched on.

? Image is out of focus
- Adjust the Focus Dial.
- Make sure the projection screen is between the required distance 7.9 to 103.8 inches (0.2 to 2.636 meters) from the projector. See page 5.

? Image is too small or too large
- Move the projector closer to or further from the screen.

? Image is reversed
- Select "Settings-->Projection" from the OSD and adjust the projection direction.

Audio Problems

? No sound
- Press the VOLUME + button. (See page 3.)

Battery Problems

? Battery capacity is low
- Remove the battery and clean the connectors.
- The battery is worn out and needs to be replaced. See page 3.

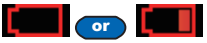
LED Indicator

Message	LED (Red)
Operation	○
Charge enabled without battery	☀
Battery Charging	☀
Charge Complete	○

- ○:Off / ☀:Flash / ☀:On

Message Reminders
- Out of the range

- High battery consumption
  Please charge the battery. (See page 3)



Compatibility Mode

Computer

Mode	Resolution	V-Sync (Hz)	H-Sync (kHz)
VGA	640x480	60	31.5
SVGA	800x600	60	37.9

Video

NTSC: M(3.58MHz), 4.43MHz

PAL: B, D, G, H, I, M, N